

COSTA RICAN CLIMATOLOGICAL DATA.

Communicated by Mr. H. PITTIER, Director, Physico-Geographic Institute.

TABLE 1.—Hourly observations at the Observatory, San José de Costa Rica, during February, 1904.

Hours.	Pressure.		Temperature.		Relative humidity.		Rainfall.		
	Observed, 1904.	Normal, 1889-1903.	Observed, 1904.	Normal, 1889-1903.	Observed, 1904.	Normal, 1889-1903.	Observed, 1904.	Normal, 1889-1903.	Duration, 1904.
	Inches.	Inches.	° F.	° F.	%	%	Ins.	Ins.	Hrs.
1 a. m.	26.18	26.16	60.8	61.9	82	82			
2 a. m.	26.16	26.14	60.3	61.3	83	84			
3 a. m.	26.13	26.13	60.0	60.9	81	84			
4 a. m.	26.12	26.12	59.9	60.5	81	84			
5 a. m.	26.12	26.12	59.4	60.4	81	83			
6 a. m.	26.13	26.13	59.2	60.1	80	84			
7 a. m.	26.15	26.15	59.2	60.1	81	84			
8 a. m.	26.16	26.16	59.2	60.4	74	77			
9 a. m.	26.17	26.17	65.9	66.7	66	69			
10 a. m.	26.18	26.18	70.3	70.8	61	61			
11 a. m.	26.18	26.18	73.0	71.6	53	57			
Noon	26.16	26.16	75.0	76.1	52	54			
1 p. m.	26.15	26.14	76.1	77.5	54	53	0.05	T.	0.93
2 p. m.	26.13	26.12	75.4	77.4	53	52	0.06		1.66
3 p. m.	26.11	26.10	74.9	76.8	54	54	0.05	T.	1.17
4 p. m.	26.10	26.09	73.5	74.8	61	58	0.01	0.01	1.00
5 p. m.	26.10	26.09	70.4	71.9	64	63	0.49	0.02	1.83
6 p. m.	26.10	26.10	67.8	68.9	63	70	0.02	0.01	1.00
7 p. m.	26.12	26.12	65.3	66.1	78	76		0.01	
8 p. m.	26.13	26.14	64.0	64.8	78	78		0.01	
9 p. m.	26.15	26.16	63.0	64.1	79	79		0.04	
10 p. m.	26.16	26.17	62.3	63.4	80	82		0.02	
11 p. m.	26.17	26.17	61.8	62.9	81	82			
Midnight	26.17	26.17	61.1	62.3	82	82			
Mean	26.14	26.14	65.7	67.0	71	72			
Minimum	26.03	25.96	52.9	46.8	36				
Maximum	26.24	26.29	85.3	89.6	94				
Total							0.68	0.12	7.59

REMARKS.—At San José the barometer is 3,835 feet above sea level. Readings are corrected for gravity, temperature, and instrumental error. The hourly readings for pressure, and wet and dry bulb thermometers, are obtained by means of Richard registering instruments, checked by direct observations every three hours from 7 a. m. to 10 p. m. The thermometers are 5 feet above ground and are corrected for instrumental errors. The total hourly rainfall is as given by Hottinger's self-register, checked once a day. Under maximum, the greatest hourly rainfall for the month is given. The standard rain gage is 5 feet above ground. Since January 1, 1902, observations at San José have been made on seventy-fifth meridian time, which is 0 hours, 36 minutes, 13.3 seconds in advance of San José local time. The normals for pressure, temperature, and relative humidity have been adjusted to this time; the normal for rainfall in Table 1 and the sunshine observations and normal in Table 2 refer to local time. At Port Limón the hours of direct observation are 8 a. m., 2 and 8 p. m., San José local time; the barometer is 14 feet above sea level. The means for temperature and relative humidity in Table 4 are obtained from two-hourly readings given by a Richard self-registering thermometer.

TABLE 2.—San José, February, 1904.

Time.	Sunshine.		Cloudiness.		Temperature of the soil at depth of—				
	Observed, 1904.	Normal, 1889-1903.	Observed, 1904.	Normal, 1889-1903.	6 inches.	12 inches.	24 inches.	48 inches.	120 inches.
	Hours.	Hours.	%	%	° F.	° F.	° F.	° F.	° F.
7 a. m.	11.57	9.73	27	34	70.2	70.7	71.1	69.7	69.6
8 a. m.	25.29	22.64							
9 a. m.	24.09	22.18							
10 a. m.	22.26	21.32	46	40	70.6	70.6	71.1	69.8	
11 a. m.	22.03	21.57							
Noon	19.76	21.34							
1 p. m.	19.00	21.31	64	44	71.8	71.1	71.1	69.8	
2 p. m.	19.80	21.92							
3 p. m.	19.81	21.26							
4 p. m.	15.00	19.06	71	54	72.6	71.5	71.2	69.7	
5 p. m.	13.49	14.37							
6 p. m.	5.19	4.05							
7 p. m.			54		72.7	71.8	71.2	69.7	
8 p. m.									
9 p. m.									
10 p. m.			32		72.0	71.5	71.2	69.7	
11 p. m.									
Midnight									
Mean			50		71.7	71.2	71.2	69.7	69.6
Total	217.29	220.73							

TABLE 3.—Rainfall at stations in Costa Rica, February, 1904.

Stations.	Height above sea level.	Observed, 1904.		Averages.	
		Amount.	Number of days.	Number of years.	Amount.
	Feet.	Inches.			Inches.
Sipurio (Talamanca)	197	4.76	13	4	6.65
Boca Banano	10	8.50	21	8	6.26
Port Limón	10			10	5.39
Swamp Mouth	10	5.32	17	6	6.54
Zent	66			3	7.80
Siquirres	197	0.39	4	6	8.46
Dos Novillos	400				
Guapiles	984	2.48	12	4	6.06
Cariblanco (Sarapiquí)	2,740			6	7.99
San Carlos	528	3.43	11	6	6.14
Las Lomas	873	2.24	10	4	5.79
Peralta	1,089	5.20	11	6	5.24
Turrialba	2,034			9	1.73
Juan Viñas	3,412	2.13	7	8	3.90
Santiago	3,609	2.80	10	3	4.69
Paraiso	4,383	0.55	7	3	0.91
Cachi	3,346			3	4.09
Las Conchavos	4,386	0.91	10	3	2.05
Cartago	4,761			3	0.98
Tres Ríos	4,265	0.20	2	15	0.39
San Francisco Guadalupe	3,894	0.59	3	8	0.39
San José	3,806	0.68	4	15	0.24
La Verbeña	3,740	0.16	3	8	0.24
Nuestro Amo	2,595	0.31	2	8	0.55
Alajuela	3,117	0.08	2	4	0.71
San Isidro Alajuela	4,416	0.47	3	3	3.27
Las Cañas	2,559				

Notes on the weather.—On the Pacific slope the rains were generally below the normal and the weather characteristic of the season. In San José pressure and relative humidity were about normal and temperature slightly below the average; the rainfall was about six times greater than usual, with great damage to coffee in preparation for the market. On the Atlantic slope the rains were almost invariably less than the average, except at Boca Banano, on the coast southeast from Limón.

Notes on earthquakes.—February 4, 6^h 14^m p. m., slight shock NW-SE., intensity IV, duration 8 seconds. February 7, 7^h 52^m a. m., slight shock NNW-SSE., intensity II, duration 3 seconds; 9^h 21^m p. m., almost imperceptible shock NNW-SSE., intensity I, duration 2 seconds; 9^h 31^m p. m., very slight shock N-S., intensity I, duration not ascertained. February 10, 4^h 34^m 21^s p. m., very slight shock NNE-SSW., intensity I, duration 1 second; 5^h 4^m p. m., very slight shock NNW-SSE., intensity I, duration not ascertained. February 13, 7^h 5^m a. m., very slight shock NNE-SSW., intensity I, duration 1 second.

CLIMATOLOGICAL DATA FOR JAMAICA.

Through the kindness of Mr. H. H. Cousins, chemist to the government of Jamaica and now in charge of the meteorological service of that island, we have received the following table in advance of the regular monthly weather report for Jamaica:

Comparative table of rainfall for February, 1904.

[Based upon the average stations only.]

Divisions.	Relative area.	Number of stations.	Rainfall.	
			1904.	Average.
	Per cent.		Inches.	Inches.
Northeastern division	25	24	8.45	4.73
Northern division	22	49	4.19	2.63
West-central division	26	24	3.13	2.44
Southern division	27	32	2.86	1.59
Means	100	201	4.66	2.85

The rainfall for February was, therefore, very much above the average for the whole island; the greatest fall, 30.91 inches, was recorded at Moore Town in the northeastern division, while 0.24 inch was recorded at Plum Point light-house in the southern division.